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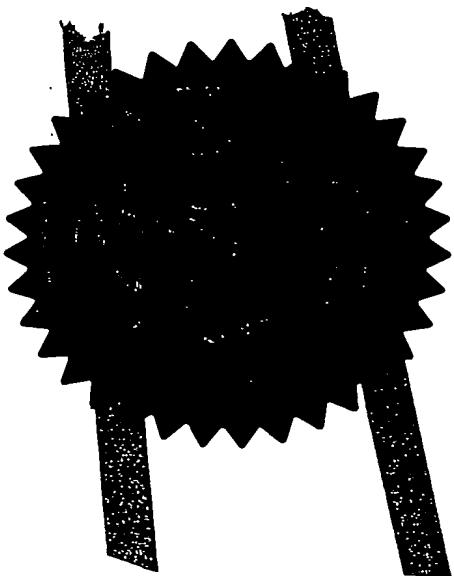
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R. McHone

Signed

Dated 25 June 2003

THE PATENT OFFICE

- 7 JUN 2002

The Patent Office

NEWPORT

Request for grant of a patent

(See the notes on the back of this form. You can also get an explanatory leaflet, from the Patent Office to help you fill in this form)

19/77

The Patent Office

Cardiff Road
Newport
Gwent NP9 1RH

1. Your reference

JPP150

07 JUN 2002

2. Patent application number

(The Patent Office will fill in this part)

0213097.9

3. Full name, address and postcode of the or of each applicant (*underline all surnames*)Autoglym
Works Road
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Herts.
SG6 1LU08JUN02 E724242-7 002806
P01/7700 0.00-0213097.9

Patents ADP number (if you know it)

82000 65001

If the applicant is a corporate body, give the country/state of its incorporation

England

4. Title of the invention

IMPROVEMENTS IN OR RELATING TO ORGANIC MATTER

5. Name of your agent (if you have one)

Barker Brettell

"Address for service" in the United Kingdom to which all correspondence should be sent (including the postcode)

138 Hagley Road
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Birmingham
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Patents ADP number (if you know it)

7442494002

Country

Priority application number
(if you know it)Date of Filing
(day/month/year)

6. If you are declaring priority from one or more earlier patent applications, give the country and the date of filing of the or of each of these earlier applications and (if you know it) the or each application number

Number of earlier application

Date of filing
(day/month/year)

7. If this application is divided or otherwise derived from an earlier UK application, give the number and the filing date of the earlier application

8. Is a statement of inventorship and of right to grant of a patent required in support of this request (Answer 'Yes' if:

- a) any applicant named in part 3 is not an inventor, or
 - b) there is an inventor who is not named as an applicant,
or
 - c) any named applicant is a corporate body.
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Patents Form 1/77

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Continuation sheets of this form -

Description 6 + 6 / w-

Claim(s) -

Abstract -

Drawing(s) -

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Priority documents -

Translations of priority documents -

Statement of inventorship and right to grant of a patent (*Patents Form 7/77*) -

Request for preliminary examination (*Patents Form 9/77*) -

Request for substantive examination (*Patents Form 10/77*) -

Any other documents -
(please specify)

I/We request the grant of a patent on the basis of this application.

Signature

Barker Brettell

Date

06 June 2002

11. Name and daytime telephone number of person to contact in the United Kingdom

James P. Peel

Tel: 0121 456 1364

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IMPROVEMENTS IN OR RELATING TO ORGANIC MATTER

The present invention provides a new biodegradable detergent composition and wash water additive for use in a vehicle wash and 5 methods of operating a vehicle wash using the detergent composition or additive.

A problem in vehicle wash areas is that organic material washed from the vehicles accumulates. As a result the vehicle wash area must be cleaned 10 from time to time and the contaminated water in the sump of the vehicle wash must occasionally be emptied. A further problem is that the material can rot leading to the production of foul odours or it can promote the growth of algae. Normally attempts are made to control foul odours by applying a biocide. Commonly commercial vehicle washes have water 15 collection tanks to which waste wash water can drain. It is known to dose such water collection tanks with a preparation of micro-organisms to digest the organic material in the waste water. It is now recognised that such dosing is inconvenient and, for it to be effective, the operator of the commercial vehicle wash must remember to do it.

20

A way of ameliorating these problems has been sought.

According to the invention there is provided a detergent composition suitable for use in a vehicle wash which composition includes a micro- 25 organism and a detergent.

According to the invention there is further provided a wash water additive for use in wash water in a vehicle wash which additive includes a micro-organism.

According to the invention there is also provided a method of operating a vehicle wash which includes means for dispensing water, means for dispensing a detergent composition and optionally one or more vehicle washing devices, which method includes providing a micro-organism in
5 the detergent composition and/or in the wash water.

By including a micro-organism in the detergent composition or in wash water used in a vehicle wash, there are various advantages including the fact that dosing of the vehicle wash by the micro-organism is proportional
10 for use of the vehicle wash. Thus the more the vehicle wash is used, generally the more organic matter will accumulate but as dosing is proportional to use, more micro-organism is supplied to combat the increased level of organic matter. As a result the growth rate of organic matter is greatly reduced allowing wash water to be recycled for longer
15 resulting in reduced operating costs for the vehicle wash, especially as there is less or no need to apply a biocide to control foul odour.

A further advantage is that the micro-organism is sprayed with the detergent composition or wash water and so it can reach all parts of the
20 vehicle wash. Therefore accumulation of organic material in inaccessible parts of a vehicle wash can be prevented by the use of the composition or additive according to the invention or of the method according to the invention.

25 Vehicle wash areas can be slippery because of organic films or algae growth. Eventually it is necessary to clean vehicle washes to deal with this problem. A further advantage of the invention is that this problem is reduced without the need for additional cleaning.

30 The invention may be applied to a vehicle wash which is suitable for washing a car, bus, lorry, caravan or train. Preferably it is for use with a

car or a bus wash. The vehicle wash optionally is operated either automatically (e.g. a drive-through vehicle wash) or manually.

5 A range of micro organisms may be used as the micro organism in the invention. Preferably the micro organism is naturally occurring. More preferably the micro organisms are capable of degrading oil, fat and/or organic material such as dirt e.g. soil, plant waste etc.

10 An automatically operated vehicle wash generally includes one or more vehicle washing devices such as a rotating brush, one or more means for supplying wash water such as nozzles or spray heads especially for dispensing wash water under pressure and one or more means for supplying a detergent composition which may be the same or different to the means for supplying wash water and are generally in the form of nozzles or spray heads. It may optionally further comprise one or more dryers. It is generally housed in a building. It has been found that with a conventional detergent, dirt from a vehicle can be spread throughout the building through the combined action of the rotating brushes and pressurised water. This can render the building difficult to clean. The 15 advantage of the invention is that a micro-organism is sprayed throughout the building as well.

20 The composition according to the invention is preferably an aqueous composition. The micro organism is preferably a naturally occurring micro organism selected for its ability to digest organic matter. The selection of suitable micro organisms will be straight forward for one of skill in the art. The composition optionally additionally comprises a preservative, an alkali metal halide (particularly sodium chloride), one or more surfactants, and/or a dye. A surfactant for use in the invention is 25 optionally ionic, particularly amphoteric or anionic, or non ionic. The surfactant is preferably in the form of a blend of different surfactants.

- Examples of suitable anionic surfactants include an alkali metal alkylbenzene sulphonate such as sodium dodecylbenzene sulphonate, for example Bio-Soft SDBS 60 (Trade name) manufactured by Stepan UK Ltd or an alkali metal alkyl ethoxysulphate, for example sodium lauryl ethoxy (3EO) sulphate such as Empicol ESC 3/G2 (Trade name) manufactured by Huntsman Surface Sciences. An example of a non-ionic surfactant is an alcohol ethoxylate such as POE-(11)-synthetic primary C₁₃/ C₁₅ alcohol, for example Synperonic A11 (Trade name) manufactured by Uniqema.
- 10 According to a second aspect of the invention there is provided a method of reducing algae growth in a vehicle wash including means for supplying a detergent, means for supplying wash water and one or more vehicle washing devices, which method includes providing a micro-organism in the detergent composition and/or in the wash water. The method according to the second aspect of the invention preferably reduces build up of organic contaminants in a vehicle wash.

According to a third aspect of the invention there is provided a method of treating a vehicle wash with a micro-organism wherein the rate of treating is proportional to the rate of use of the vehicle wash which vehicle wash includes means for supplying wash water, means for supplying a detergent composition and one or more vehicle washing devices, wherein the method includes the step of providing a micro-organism in the wash water and/or in the detergent composition.

- 25 According to the invention there is further provided the use of a micro-organism in a detergent composition and/or in wash water for use in a vehicle wash.
- 30 The invention will now be further explained with reference to the following examples which are provided by way of illustration only.

EXAMPLE 1

A detergent composition was prepared by mixing together the ingredients
 5 shown in Table 1 to a total weight of 10kg.

TABLE 1

Ingredient	Amount / % w/w
Water	72.983
Bioban CS 1246 ^(a)	0.500
Bio-Soft SDBS 60 ^(b)	7.800
Empicol ESC3/G2 ^(c)	10.000
Drimarene Brill Green 3-XG ^(d)	0.017
Synperonic A11 ^(e)	2.000
Bichem GC 700L NS (10X NF) ^(f)	5.000
Sodium chloride	1.700
Total	100.00

Wherein (a) Bioban CS 1246 (Trade name) is a preservative (antibacterial agent) containing oxazolidine (1-aza-3,7 - dioxa - 5- ethylbicyclo (3.3.0) octane) manufactured by Angus Chemie GmbH.
 10

(b) Bio-Soft SDBS 60 (Trade name) is an aqueous solution of a sodium dodecylbenzene sulphonate manufactured by Steppan UK Limited.

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(c) Empicol ESC 3/G2 (Trade name) is an aqueous solution of sodium lauryl ethoxy (3EO) sulphate manufactured by Huntsman Surface Sciences.

- (d) Drimarene Brill Green 3-XG (Trade name) is a reactive nickel phthalocyanine dyestuff, manufactured by Clariant UK Limited.
- 5 (e) Synperonic A11 (Trade name) is a POE-(II)-synthetic primary C₁₃/C₁₅ alcohol manufactured by Uniqema.
- (f) Bichem GC 700L NS (10X NF) (Trade name) is a liquid preparation containing greater than 99% *Bacillus* microorganisms in a water base, manufactured by Novozymes Biologicals, France S.A.

10 The composition was used in an automatically operated car wash. After 8 weeks it was found that there was a 75% reduction in the growth rate of waste, complete elimination of foul odour in recycled water and reduction 15 in slipperiness in the wash floor area. In other measured tests the reduction in the growth rate of waste was greater than 50%.

EXAMPLE 2

- 20 A wash water additive composition of 10kg in weight was prepared by mixing the ingredients shown in Table 2 in the proportions given:

TABLE 2

Ingredient	Amount / % w/w
Water	94.983
Drimarene Brill Green 3-XG	0.017
Bichem GC 700L NS (10X NF)	5.000

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26 JUN 2003

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